

**Perforin (E3W4I) Rabbit mAb**

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IHC-Bond, IHC-P	M	Endogenous	55-75	Rabbit IgG	#P10820	18646

**Product Usage Information**

Application	Dilution
Western Blotting	1:1000
IHC Leica Bond	1:100 - 1:400
Immunohistochemistry (Paraffin)	1:200 - 1:800

**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #36810.

**Specificity/Sensitivity**

Perforin (E3W4I) Rabbit mAb recognizes endogenous levels of total perforin protein. High expressing cells like CTLL-2 can produce several low molecular weight bands due to degradation of the protein. Non-specific staining was observed in mouse salivary gland by immunohistochemistry.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gln63 of mouse perforin protein.

**Background**

Granzymes are a family of serine proteases expressed by cytotoxic T lymphocytes and natural killer (NK) cells and are key components of immune responses to pathogens and transformed cells (1). Granzymes are synthesized as zymogens and are processed into mature enzymes by cleavage of a leader sequence. They are released by exocytosis in lysosome-like granules containing perforin, a membrane pore-forming protein. Granzyme B has the strongest apoptotic activity of all the granzymes as a result of its caspase-like ability to cleave substrates at aspartic acid residues thereby activating procaspases directly and cleaving downstream caspase substrates (2,3). Perforin is a pore-forming protein that facilitates the entry of cytotoxic serine proteases, such as granzymes, into target cells (4). Perforin is primarily expressed in cytotoxic T lymphocytes and NK cells.

**Background References**

1. Trapani, J.A. (2001) *Genome Biol.* 2, REVIEWS 3014.
2. Lord, S.J. et al. (2003) *Immunol. Rev.* 193, 31-8.
3. Trapani, J.A. and Sutton, V.R. (2003) *Curr. Opin. Immunol.* 15, 533-43.
4. Catalfamo, M. and Henkart, P.A. (2003) *Curr Opin Immunol* 15, 522-7.

**Species Reactivity**

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

**Western Blot Buffer**

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween@ 20 at 4°C with gentle shaking, overnight.

**Applications Key**

**W:** Western Blotting **IHC-Bond:** IHC Leica Bond **IHC-P:** Immunohistochemistry (Paraffin)

**Cross-Reactivity Key**

**M:** Mouse

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